

[Cancer Res., 53, 772-776 (1993)]

[Lab. of Biochemistry]

Chemoprevention of Oral Carcinogenesis by DL- α -Difluoromethylornithine, an Ornithine Decarboxylase Inhibitor: Dose-dependent Reduction 4-Nitroquinoline 1-Oxide-induced Tongue Neoplasms in Rats.

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The oral administration of DL-difluoromethylornithine to rats during the postinitiation phase of tongue carcinogenesis initiated by 4-nitroquinoline 1-oxide inhibited the incidence of neoplastic and preneoplastic lesions of the tongue in a dose-dependent manner. The inhibition was related to reduction in polyamine levels of blood and tissue and decrease in the cell proliferation.

[Cancer Res., 53, 3903-3907 (1993)]

[Lab. of Biochemistry]

Chemopreventive Effects of Dietary D,L- α -Difluoromethylornithine, an Ornithine Decarboxylase Inhibitor, on Initiation and Postinitiation Stages of Diethylnitrosamine-induced Rat Hepatocarcinogenesis.

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The modifying effects of dietary administration of DL-difluoromethylornithine (DFMO) during initiation or postinitiation phase on the hepatocarcinogenesis initiated by diethylnitrosamine were studied. The frequencies of liver cell tumors and the number and area of silver-stained nucleolar organizer regions proteins/nucleus were significantly reduced in rats given DFMO. The inhibition may be due to alteration in cell proliferation activity caused by DFMO.

[Japan. J. Pharmacol., 61, 23-30 (1993)]

[Lab. of Pharmacology]

Suppression of IgE Production by IPD-1151T (Suplatast Tosilate), a New Dimethylsulfonium Agent: (1) Regulation of Murine IgE Response.

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The effect of IPD-1151T on the IgE response was investigated in the mouse system. IPD-1151T suppressed the primary IgE antibody response without affecting the IgG antibody response. The enhanced expression of Fc ϵ RII on the spleen cells of immunized mice was also inhibited. The adoptive transfer experiment demonstrated that the treatment with the agent of hapten-primed B cell donors suppressed the hapten-specific secondary IgE antibody response in irradiated recipients. Furthermore, IPD-1151T inhibited the production of interleukin 4 by D10G4. The IgE-suppressive activity of IPD-1151T may be due to the inhibition of interleukin 4 production.